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## High-Resolution Aeromagnetic Survey Map of Part of the Southwest Nevada Volcanic Field

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### ABSTRACT

A high-resolution aeromagnetic survey was recently flown to collect data for geologic investigations in the Southwest Nevada Volcanic Field. This survey represents a marked improvement over previous (1999) surveys. The survey includes over 860 km<sup>2</sup> covered by nearly 16,000 km of flightline with 60-m spacing and an instrument altitude of 30 m above the ground surface. Features of interest visible in the dataset include magnetic banding in the volcanic tuffs that form the faulted terrain and sharp delineation of Quaternary basalt cinder cones and lava flows. This 1:100,000-scale map includes a shaded-relief map base and a semi-transparent overlay of the aeromagnetic data, with inset maps illustrating 1) comparisons of detail between the 1999 and 2004 datasets, 2) polarity reversal banding in the volcanic tuff ridges, 3) details of the morphology of Quaternary basalt centers enhanced by aeromagnetic data, and 4) use of GIS in planning the survey.

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To be presented in the Map Gallery at the 24<sup>th</sup> Annual Environmental Systems Research Institute (ESRI) International User Conference, San Diego, CA, August 9-13, 2004.